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TITLE : PRODUCTION OF POLYALKYLBENZENE

ABSTRACT : PURPOSE: To stably produce a 1,2,3-trialkylbenzene and a 1,2,4,5-tetraalkylbenzene in high selectivity, and to facilitate the recovery and reutilization of a catalyst.

CONSTITUTION: An alkylbenzene is reacted with a 2-5C olefin as an alkylation agent in the presence of a heteropolyacid as a catalyst in a liquid phase to produce polyalkylbenzenes. The alkylbenzene of the raw material includes toluene, xylene, and pseudocumene, and the olefin of the alkylation agent includes ethylene, propylene, 1-butene, isobutene, 1-pentene and isopentene. The heteropolyacid of the catalyst is preferably a kegin type heteropolyacid of general formula: $\text{H}_n\text{X}_1\text{Y}_{12}\text{O}_{40} \cdot n\text{H}_2\text{O}$. In order to increase the activity of the heteropolyacid catalyst, and further in order to enable to readily separate, recover and reuse the catalyst after the reaction of the catalyst, the catalyst is preferably carried and immobilized on a carrier.

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